



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/489,730	01/21/2000	Robert C. Hartman JR.	STL000022US1	6187

24852 7590 04/11/2002

INTERNATIONAL BUSINESS MACHINES CORP
IP LAW
555 BAILEY AVENUE , J46/G4
SAN JOSE, CA 95141

EXAMINER

PHAM, HUNG Q

ART UNIT PAPER NUMBER

2172

DATE MAILED: 04/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/489,730

Applicant(s)

HARTMAN ET AL.

Examiner

HUNG Q PHAM

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Art Unit: 2172

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. **Claims 1-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeRose et al. [USP 5,557,722].**

Art Unit: 2172

Regarding to claim 1, DeRose teaches a method for formatting documents in electronic or other non-paper media, and for generating representations, indexing and rendering on a computer screen of electronic documents (Col. 1, lines 13-17). The DeRose method using a tree-like structure for storing at least one content object as a title of a book that has a plurality of content entities such as chapter, section and text in a data repository (Fig. 3, Col. 3, lines 28-41). In the process of indexing a document, three file objects are created on the mass storage device. These file object are called the element directory, the fully-qualified name table and the text content (Col. 10, lines 39-51). As shown in Fig. 8 (Col. 10-Col. 12), the process will append tag name to current fully-qualified name table (Col. 11, line 40-55) and save text content to the text file (Col. 12, lines 41-46). The fully-qualified name table is a list of tag names or content entity identifiers that define the content of the content object (Fig. 7) and the text content for each chapter or section will be stored as a file object in the text file (Col. 12, lines 41-46). These steps indicate: a file object containing a list of content entity identifiers defining the content of the content object, and a plurality of file objects, each file object containing a content entity. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose process to have a file structure for storing content object and its content entities with a file object containing a list of content entity identifiers defining the content of the content object and a plurality of file objects, each containing a content entity in order to format an electric document such as electric book in accordance with its contents.

Art Unit: 2172

Regarding to claim 2, DeRose teaches all the claimed subject matters as discussed in claim 1, and further discloses: in the process of indexing a document, the element directory object are created, the element directory as an attribute file object containing at least one attribute pertaining to the content object (Fig. 6, Col. 9, lines 21-23 and Col. 10, lines 39-56).

Regarding to claim 3, DeRose teaches all the claimed subject matters as discussed in claim 1, DeRose further discloses: at least one attributes is extracted from the content object (Col. 9, lines 21-37).

Regarding to claim 4, DeRose teaches all the claimed subject matters as discussed in claim 1, but fails to disclose: ones of the content entities further comprise components associated with the content object, and further comprising one or more associated component file objects. However, as shown in Fig. 3, the body 50 of book 52 comprises an art work 64 that associated with book 52 as the content object. DeRose further discloses: some of the tags in the descriptive markup of the document may also be empty tags such as tag 49 (FIG. 4). Such empty tags may be used for cross-referencing, referencing other documents, or for referencing graphic or other types of non-text information, etc. These tags often have attributes which are variables, such as "file", to which are assigned values, such as "myfig12" (Col. 8, lines 61-67). This indicates ones of the content entities further comprise components associated with the content object, and further comprising one or more associated component file objects.

Art Unit: 2172

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method to include the technique of storing each associated component as a file object in order to format an electric document such as electric book in accordance with its non-text information such as image file.

Regarding to claim 5, DeRose teaches all the claimed subject matters as discussed in claim 1, DeRose further discloses: the content object is one of a book, a collection of images, an album, and a video (Col. 7, lines 59-64).

Regarding to claim 6, DeRose teaches all the claimed subject matters as discussed in claim 1, DeRose further discloses: the content object is a book and ones of the content entities are one of volumes, chapters or sections (Col. 7, lines 59-64).

Regarding to claim 7, DeRose teaches all the claimed subject matters as discussed in claim 4, DeRose further discloses: at least one of the associated components comprises an image (Col. 8, lines 18-25).

Regarding to claim 8, DeRose teaches a method for formatting documents in electronic or other non-paper media, and for generating representations, indexing and rendering on a computer screen of electronic documents (Col. 1, lines 13-17). The DeRose method using a tree-like structure for storing a hierarchically structured content object as a title of a book that has a plurality of content entities such as chapter, section

Art Unit: 2172

and text in a data repository (Fig. 3, Col. 3, lines 28-41). In the process of indexing a document, three file objects are created on the mass storage device. These file object are called the element directory, the fully-qualified name table and the text content (Col. 10, lines 39-51). As shown in Fig. 8 (Col. 10-Col. 12), the process will append tag name to current fully-qualified name table (Col. 11, line 40-55) and save text content to the text file (Col. 12, lines 41-46). The fully-qualified name table is a list of tag names or content entity identifiers that define the content of the content object (Fig. 7) and the text content for each chapter or section will be stored as a file object in the text file (Col. 12, lines 41-46). These steps indicate: a first file object containing an outline of containers and content entity identifiers defining the content and hierarchical structure of the content entity, and a plurality of file objects, each containing a content entity. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose process to have a file structure for storing a hierarchically structured content object and its content entities with a file object containing an outline of containers and content entity identifiers defining the content and hierarchical structure content entity and a plurality of file objects, each containing a content entity in order to format an electric document such as electric book in accordance with its contents.

Regarding to claim 9, DeRose teaches all the claimed subject matters as discussed in claim 8, and further discloses: in the process of indexing a document, the element directory object are created, the element directory as an attribute file object

Art Unit: 2172

containing at least one attribute pertaining to the content object (Fig. 6, Col. 9, lines 21-23 and Col. 10, lines 39-56).

Regarding to claim 10, DeRose teaches all the claimed subject matters as discussed in claim 8, DeRose further discloses: at least one attributes is extracted from the content object (Col. 9, lines 21-37).

Regarding to claim 11, DeRose teaches all the claimed subject matters as discussed in claim 8, but fails to disclose: ones of the content entities further comprise components associated with the content object, and further comprising one or more associated component file objects. However, as shown in Fig. 3, the body 50 of book 52 comprises an art work 64 that associated with book 52 as the content object. DeRose further discloses: some of the tags in the descriptive markup of the document may also be empty tags such as tag 49 (FIG. 4). Such empty tags may be used for cross-referencing, referencing other documents, or for referencing graphic or other types of non-text information, etc. These tags often have attributes which are variables, such as "file", to which are assigned values, such as "myfig12" (Col. 8, lines 61-67). This indicates ones of the content entities further comprise components associated with the content object, and further comprising one or more associated component file objects. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method to include the technique of storing

Art Unit: 2172

each associated component as a file object in order to format an electric document such as electric book in accordance with its non-text information such as image file.

Regarding to claim 12, DeRose teaches all the claimed subject matters as discussed in claim 8, DeRose further discloses: the content object is one of a book, a collection of images, an album, and a video (Col. 7, lines 59-64).

Regarding to claim 13, DeRose teaches all the claimed subject matters as discussed in claim 8, DeRose further discloses: the content object is a book and ones of the containers are one of books, volumes or chapters (Col. 7, lines 59-64).

Regarding to claim 14, DeRose teaches all the claimed subject matters as discussed in claim 8, DeRose further discloses: the content object is a book and ones of the content entities are one of volumes, chapters or sections (Col. 7, lines 59-64).

Regarding to claim 15, DeRose teaches all the claimed subject matters as discussed in claim 11, DeRose further discloses: at least one of the associated components comprises an image (Col. 8, lines 18-25).

Regarding to claim 16, DeRose teaches a method for formatting documents in electronic or other non-paper media, and for generating representations, indexing and rendering on a computer screen of electronic documents (Col. 1, lines 13-17). The

Art Unit: 2172

DeRose method using a tree-like structure for storing at least one content object as a title of a book that has a plurality of content entities such as chapter, section and text in a data repository (Fig. 3, Col. 3, lines 28-41). In the process of indexing a document, three file objects are created on the mass storage device. These file object are called the element directory, the fully-qualified name table and the text content (Col. 10, lines 39-51). As shown in Fig. 8 (Col. 10-Col. 12), the process will append tag name to current fully-qualified name table (Col. 11, line 40-55) and save text content to the text file (Col. 12, lines 41-46). The fully-qualified name table is a list of tag names or content entity identifiers that define the content of the content object (Fig. 7) and the text content for each chapter or section will be stored as a file object in the text file (Col. 12, lines 41-46). These steps indicate: creating a file object containing a list of content entity identifiers defining the content of the content object, and creating a plurality of file objects, each file object containing a content entity. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose process to have a file structure for storing content object and its content entities with a file object containing a list of content entity identifiers defining the content of the content object and a plurality of file objects, each containing a content entity in order to format an electric document such as electric book in accordance with its contents.

Regarding to claim 17, DeRose teaches all the claimed subject matters as discussed in claim 16, and further discloses: in the process of indexing a document, the

Art Unit: 2172

element directory object are created, the element directory as an attribute file object containing at least one attribute pertaining to the content object (Fig. 6, Col. 9, lines 21-23 and Col. 10, lines 39-56).

Regarding to claim 18, DeRose teaches all the claimed subject matters as discussed in claim 16, DeRose further discloses: at least one attributes is extracted from the content object (Col. 9, lines 21-37).

Regarding to claim 19, DeRose teaches all the claimed subject matters as discussed in claim 16, but fails to disclose: ones of the content entities further comprise components associated with the content object, and further comprising one or more associated component file objects. However, as shown in Fig. 3, the body 50 of book 52 comprises an art work 64 that associated with book 52 as the content object. DeRose further discloses: some of the tags in the descriptive markup of the document may also be empty tags such as tag 49 (FIG. 4). Such empty tags may be used for cross-referencing, referencing other documents, or for referencing graphic or other types of non-text information, etc. These tags often have attributes which are variables, such as "file", to which are assigned values, such as "myfig12" (Col. 8, lines 61-67). This indicates ones of the content entities further comprise components associated with the content object, and further comprising one or more associated component file objects. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method to include the technique of storing

Art Unit: 2172

each associated component as a file object in order to format an electric document such as electric book in accordance with its non-text information such as image file.

Regarding to claim 20, DeRose teaches all the claimed subject matters as discussed in claim 16, DeRose further discloses: the content object is one of a book, a collection of images, an album, and a video (Col. 7, lines 59-64).

Regarding to claim 21, DeRose teaches all the claimed subject matters as discussed in claim 16, DeRose further discloses: the content object is a book and ones of the content entities are one of volumes, chapters or sections (Col. 7, lines 59-64).

Regarding to claim 22, DeRose teaches all the claimed subject matters as discussed in claim 19, DeRose further discloses: at least one of the associated components comprises an image (Col. 8, lines 18-25). DeRose fails to teach the associated component comprises a video segment or an audio segment. However, DeRose teaches that a document may also include other types of elements and artwork elements may be used to point to non-text objects (Col. 8, lines 18-25). This indicates the associated component could be a video segment or an audio segment. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method to include video and audio segment as the associated component in order to format an electric document such as electric book in accordance with its non-text information such as video or audio file.

Regarding to claim 23, DeRose teaches a method for formatting documents in electronic or other non-paper media, and for generating representations, indexing and rendering on a computer screen of electronic documents (Col. 1, lines 13-17). The DeRose method using a tree-like structure for storing a hierarchically structured content object as a title of a book that has a plurality of content entities such as chapter, section and text in a data repository (Fig. 3, Col. 3, lines 28-41). In the process of indexing a document, three file objects are created on the mass storage device. These file object are called the element directory, the fully-qualified name table and the text content (Col. 10, lines 39-51). As shown in Fig. 8 (Col. 10-Col. 12), the process will append tag name to current fully-qualified name table (Col. 11, line 40-55) and save text content to the text file (Col. 12, lines 41-46). The fully-qualified name table is a list of tag names or content entity identifiers that define the content of the content object (Fig. 7) and the text content for each chapter or section will be stored as a file object in the text file (Col. 12, lines 41-46). These steps indicate: creating a first file object containing an outline of containers and content entity identifiers defining the content and hierarchical structure of the content entity, and creating a plurality of file objects, each containing a content entity. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose process to have a file structure for storing a hierarchically structured content object and its content entities with a file object containing an outline of containers and content entity identifiers defining the content and hierarchical structure content entity and a plurality of file objects, each containing a

Art Unit: 2172

content entity in order to format an electric document such as electric book in accordance with its contents.

Regarding to claim 24, DeRose teaches all the claimed subject matters as discussed in claim 23, and further discloses: in the process of indexing a document, the element directory object are created, the element directory as an attribute file object containing at least one attribute pertaining to the content object (Fig. 6, Col. 9, lines 21-23 and Col. 10, lines 39-56).

Regarding to claim 25, DeRose teaches all the claimed subject matters as discussed in claim 23, DeRose further discloses: at least one attributes is extracted from the content object (Col. 9, lines 21-37).

Regarding to claim 26, DeRose teaches all the claimed subject matters as discussed in claim 23, but fails to disclose: ones of the content entities further comprise components associated with the content object, and further comprising one or more associated component file objects. However, as shown in Fig. 3, the body 50 of book 52 comprises an art work 64 that associated with book 52 as the content object. DeRose further discloses: some of the tags in the descriptive markup of the document may also be empty tags such as tag 49 (FIG. 4). Such empty tags may be used for cross-referencing, referencing other documents, or for referencing graphic or other types of non-text information, etc. These tags often have attributes which are variables, such as

Art Unit: 2172

"file", to which are assigned values, such as "myfig12" (Col. 8, lines 61-67). This indicates ones of the content entities further comprise components associated with the content object, and further comprising one or more associated component file objects. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method to include the technique of storing each associated component as a file object in order to format an electric document such as electric book in accordance with its non-text information such as image file.

Regarding to claim 27, DeRose teaches all the claimed subject matters as discussed in claim 23, DeRose further discloses: the content object is one of a book, a collection of images, an album, and a video (Col. 7, lines 59-64).

Regarding to claim 28, DeRose teaches all the claimed subject matters as discussed in claim 23, DeRose further discloses: the content object is a book and ones of the containers are one of books, volumes or chapters (Col. 7, lines 59-64).

Regarding to claim 29, DeRose teaches all the claimed subject matters as discussed in claim 23, DeRose further discloses: the content object is a book and ones of the content entities are one of volumes, chapters or sections (Col. 7, lines 59-64).

Regarding to claim 30, DeRose teaches all the claimed subject matters as discussed in claim 26, DeRose further discloses: at least one of the associated

Art Unit: 2172

components comprises an image (Col. 8, lines 18-25). DeRose fails to teach the associated component comprises a video segment or an audio segment. However, DeRose teaches that a document may also include other types of elements and artwork elements may be used to point to non-text objects (Col. 8, lines 18-25). This indicates the associated component could be a video segment or an audio segment. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method to include video and audio segment as the associated component in order to format an electric document such as electric book in accordance with its non-text information such as video or audio file.

Regarding to claim 31, DeRose teaches a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method for formatting documents in electronic or other non-paper media, and for generating representations, indexing and rendering on a computer screen of electronic documents (Col. 1, lines 13-17). The DeRose method using a tree-like structure for storing at least one content object as a title of a book that has a plurality of content entities such as chapter, section and text in a data repository (Fig. 3, Col. 3, lines 28-41). In the process of indexing a document, three file objects are created on the mass storage device. These file object are called the element directory, the fully-qualified name table and the text content (Col. 10, lines 39-51). As shown in Fig. 8 (Col. 10-Col. 12), the process will append tag name to current fully-qualified name table (Col. 11, line 40-55) and save text content to the text file (Col. 12, lines 41-46). The fully-

Art Unit: 2172

qualified name table is a list of tag names or content entity identifiers that define the content of the content object (Fig. 7) and the text content for each chapter or section will be stored as a file object in the text file (Col. 12, lines 41-46). These steps indicate: creating a file object containing a list of content entity identifiers defining the content of the content object, and creating a plurality of file objects, each file object containing a content entity. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose process to have a file structure for storing content object and its content entities with a file object containing a list of content entity identifiers defining the content of the content object and a plurality of file objects, each containing a content entity in order to format an electric document such as electric book in accordance with its contents.

Regarding to claim 32, DeRose teaches all the claimed subject matters as discussed in claim 31, and further discloses: in the process of indexing a document, the element directory object are created, the element directory as an attribute file object containing at least one attribute pertaining to the content object (Fig. 6, Col. 9, lines 21-23 and Col. 10, lines 39-56).

Regarding to claim 33, DeRose teaches all the claimed subject matters as discussed in claim 31, DeRose further discloses: at least one attributes is extracted from the content object (Col. 9, lines 21-37).

Art Unit: 2172

Regarding to claim 34, DeRose teaches all the claimed subject matters as discussed in claim 31, but fails to disclose: ones of the content entities further comprise components associated with the content object, and further comprising one or more associated component file objects. However, as shown in Fig. 3, the body 50 of book 52 comprises an art work 64 that associated with book 52 as the content object. DeRose further discloses: some of the tags in the descriptive markup of the document may also be empty tags such as tag 49 (FIG. 4). Such empty tags may be used for cross-referencing, referencing other documents, or for referencing graphic or other types of non-text information, etc. These tags often have attributes which are variables, such as "file", to which are assigned values, such as "myfig12" (Col. 8, lines 61-67). This indicates ones of the content entities further comprise components associated with the content object, and further comprising one or more associated component file objects. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method to include the technique of storing each associated component as a file object in order to format an electric document such as electric book in accordance with its non-text information such as image file.

Regarding to claim 35, DeRose teaches all the claimed subject matters as discussed in claim 31, DeRose further discloses: the content object is one of a book, a collection of images, an album, and a video (Col. 7, lines 59-64).

Art Unit: 2172

Regarding to claim 36, DeRose teaches all the claimed subject matters as discussed in claim 31, DeRose further discloses: the content object is a book and ones of the content entities are one of volumes, chapters or sections (Col. 7, lines 59-64).

Regarding to claim 37, DeRose teaches all the claimed subject matters as discussed in claim 34, DeRose further discloses: at least one of the associated components comprises an image (Col. 8, lines 18-25). DeRose fails to teach the associated component comprises a video segment or an audio segment. However, DeRose teaches that a document may also include other types of elements and artwork elements may be used to point to non-text objects (Col. 8, lines 18-25). This indicates the associated component could be a video segment or an audio segment. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method to include video and audio segment as the associated component in order to format an electric document such as electric book in accordance with its non-text information such as video or audio file.

Regarding to claim 38, DeRose teaches a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method for formatting documents in electronic or other non-paper media, and for generating representations, indexing and rendering on a computer screen of electronic documents (Col. 1, lines 13-17). The DeRose method using a tree-like structure for storing a hierarchically structured content object as a title of a book that

Art Unit: 2172

has a plurality of content entities such as chapter, section and text in a data repository (Fig. 3, Col. 3, lines 28-41). In the process of indexing a document, three file objects are created on the mass storage device. These file object are called the element directory, the fully-qualified name table and the text content (Col. 10, lines 39-51). As shown in Fig. 8 (Col. 10-Col. 12), the process will append tag name to current fully-qualified name table (Col. 11, line 40-55) and save text content to the text file (Col. 12, lines 41-46). The fully-qualified name table is a list of tag names or content entity identifiers that define the content of the content object (Fig. 7) and the text content for each chapter or section will be stored as a file object in the text file (Col. 12, lines 41-46). These steps indicate: creating a first file object containing an outline of containers and content entity identifiers defining the content and hierarchical structure of the content entity, and creating a plurality of file objects, each containing a content entity. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose process to have a file structure for storing a hierarchically structured content object and its content entities with a file object containing an outline of containers and content entity identifiers defining the content and hierarchical structure content entity and a plurality of file objects, each containing a content entity in order to format an electric document such as electric book in accordance with its contents.

Regarding to claim 39, DeRose teaches all the claimed subject matters as discussed in claim 38, and further discloses: in the process of indexing a document, the element directory object are created, the element directory as an attribute file object

Art Unit: 2172

containing at least one attribute pertaining to the content object (Fig. 6, Col. 9, lines 21-23 and Col. 10, lines 39-56).

Regarding to claim 40, DeRose teaches all the claimed subject matters as discussed in claim 38, DeRose further discloses: at least one attributes is extracted from the content object (Col. 9, lines 21-37).

Regarding to claim 41, DeRose teaches all the claimed subject matters as discussed in claim 38, but fails to disclose: ones of the content entities further comprise components associated with the content object, and further comprising one or more associated component file objects. However, as shown in Fig. 3, the body 50 of book 52 comprises an art work 64 that associated with book 52 as the content object. DeRose further discloses: some of the tags in the descriptive markup of the document may also be empty tags such as tag 49 (FIG. 4). Such empty tags may be used for cross-referencing, referencing other documents, or for referencing graphic or other types of non-text information, etc. These tags often have attributes which are variables, such as "file", to which are assigned values, such as "myfig12" (Col. 8, lines 61-67). This indicates ones of the content entities further comprise components associated with the content object, and further comprising one or more associated component file objects. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method to include the technique of storing

Art Unit: 2172

each associated component as a file object in order to format an electric document such as electric book in accordance with its non-text information such as image file.

Regarding to claim 42, DeRose teaches all the claimed subject matters as discussed in claim 38, DeRose further discloses: the content object is one of a book, a collection of images, an album, and a video (Col. 7, lines 59-64).

Regarding to claim 43, DeRose teaches all the claimed subject matters as discussed in claim 38, DeRose further discloses: the content object is a book and ones of the containers are one of books, volumes or chapters (Col. 7, lines 59-64).

Regarding to claim 44, DeRose teaches all the claimed subject matters as discussed in claim 38, DeRose further discloses: the content object is a book and ones of the content entities are one of volumes, chapters or sections (Col. 7, lines 59-64).

Regarding to claim 45, DeRose teaches all the claimed subject matters as discussed in claim 41, DeRose further discloses: at least one of the associated components comprises an image (Col. 8, lines 18-25). DeRose fails to teach the associated component comprises a video segment or an audio segment. However, DeRose teaches that a document may also include other types of elements and artwork elements may be used to point to non-text objects (Col. 8, lines 18-25). This indicates the associated component could be a video segment or an audio segment. Therefore, it

Art Unit: 2172

would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method to include video and audio segment as the associated component in order to format an electric document such as electric book in accordance with its non-text information such as video or audio file.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Pham whose telephone number is 703-605 4242. The examiner can normally be reached on Monday-Friday, 7:00 Am - 3:30 Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VU, KIM YEN can be reached on 703-305 4393. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746 7239 for regular communications and 703-746 7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305 900.

Examiner: Hung Pham

April 1, 2002

Alford W. Kindred
